

WE CLAIM:

1. An inkjet printhead for printing on a media substrate, the printhead comprising:
a wafer substrate defining a plurality of nozzle chambers for storing ink to be ejected, each of the nozzle chambers having an outer wall that faces the media substrate during use, the wall having an ink ejection port and at least one actuator for moving the ink ejection port away from the media substrate to eject ink from the corresponding nozzle chamber via the ink ejection port.
2. An inkjet printhead according to claims 1 wherein there is a plurality of actuators in the wall.
3. An inkjet printhead according to claims 2 wherein the actuators include a surface which bends inwards away from the centre of the nozzle chamber upon actuation.
4. An inkjet printhead according to claims 3 wherein the actuators are actuated by means of a thermal actuator device.
5. An inkjet printhead according to claims 4 wherein the thermal actuator device has a conductive resistive heating element encased within a material having a high coefficient of thermal expansion.
6. An inkjet printhead according to claims 5 wherein the element can be serpentine to allow for substantially unhindered expansion of the material.
7. An inkjet printhead according to claims 6 wherein the actuators are arranged radially around the ejection port.
8. An inkjet printhead according to claims 7 wherein the actuators form a membrane between the nozzle chamber and an external atmosphere of the arrangement and the actuators bend away from the external atmosphere to cause an increase in pressure within the nozzle chamber thereby initiating a consequential ejection of ink from the nozzle chamber.
9. An inkjet printhead according to claims 8 wherein the actuators bend away from a central axis of the nozzle chamber.
10. An inkjet printhead according to claims 9 wherein the ink chambers are formed on the wafer substrate utilizing micro-electro mechanical techniques and further comprise an ink supply channel in communication with the nozzle chamber.
11. An inkjet printhead according to claims 10 wherein the ink supply channel is etched through the wafer.

12. An inkjet printhead according to claims 11 wherein each of the ink chambers include a series of struts which support the ejection port.
13. An inkjet printhead according to claims 12 wherein the ink chambers are formed adjacent each other so as to form a pagewidth printhead.